

AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0008] with the following amended paragraph:

Specifically, in the exemplary embodiment, the crystal element of the scintillation detector is wrapped with reflective tape. Surrounding the tape is a polyamide wrap, and a sidewall axial restraint and compliance assembly (SARCA) similar to that disclosed in, for example, U.S. Patent No. 5,962,855. The SARCA generally includes inner and outer layers of material that, in accordance with this invention, are sandwiched about a gadolinium foil wrap. The outer layer of the SARCA may be a ~~Teflon®~~ polytetrafluoroethylene (e.g., TEFLON®)-coated stainless steel sleeve and the inner layer may be a polyamide sleeve.

Please replace paragraph [0009] with the following amended paragraph:

The ~~Teflon®~~ polytetrafluoroethylene-coated stainless steel sleeve is arranged with the ~~Teflon®~~ polytetrafluoroethylene-coated side to the outside of the detector. An aluminum collar is glued to the inside of the stainless steel sleeve, at one end thereof. The gadolinium foil is then glued to the opposed face of the polyamide sleeve, the glue being applied only in an area that will align with the collar on the stainless steel sleeve. The remaining interface between the gadolinium and the polyamide sleeve is filled with grease. The inner SARCA (comprised of the polyamide sleeve and gadolinium foil) is then glued to the outer SARCA (the ~~Teflon®~~ polytetrafluoroethylene-coated stainless steel sleeve and aluminum collar), with the gadolinium foil sandwiched between the

uncoated side of the stainless steel sleeve and the polyamide sleeve. The assembled SARCA is then wrapped about the crystal and held in place by, for example, a strip of ~~Kapton~~ adhesive tape.

Please replace paragraph [0022] with the following amended paragraph:

The crystal 12 is initially wrapped with a reflective ~~Teflon®~~ polytetrafluoroethylene (e.g., TEFLON®) tape 14. The forward, tapered end portion 16 of the crystal is shielded by a conically shaped gadolinium foil 18 (partially shown in Figure 2). A thin polyamide layer 20 is then wrapped about the cylindrical portion 22 of the crystal and secured by a 1/4" adhesive strip of a polyimide film or tape, e.g., KAPTON® ~~Kapton tape~~ 24.

Please replace paragraph [0023] with the following amended paragraph:

With reference also to Figures 3-5, the SARCA assembly 26 includes an outer stainless steel sleeve 28, the outer surface 30 of which (see Fig. 5) is coated with polytetrafluoroethylene (e.g., TEFLON®), Teflon®, and an inner polyamide sleeve 32 (see Fig. 4). After the non-coated side (or inner surface) 36 of the sleeve 28 (see Fig. 3) is cleaned and primed, a narrow, thin aluminum collar 34 (about 0.25 in. wide and no more than 0.010 in. thick) is secured at one end of the inner surface 36 of the sleeve 28, using a silicone rubber adhesive such as SYLGARD® ~~Sylgard~~ 184 or other similar adhesive. The adhesive is preferably applied to both the collar 34 and the sleeve 28. As best seen in Fig. 4, a gadolinium foil 38 is then applied to the ~~inner~~ outer surface 40 of

the polyamide sleeve 32 as follows. Glue (again, preferably a silicone rubber adhesive such as SYLGARD®) ~~Sylgard~~ is applied to the inner surface 39 of the gadolinium foil 38, but only in the area 42 that will align with the aluminum collar 34. Grease 48 is then applied over most of the remaining area 44 of surface 39 of the gadolinium foil 38, leaving space 46 (of about 0.25 inch) blank. The foil 38 is then adhered to the ~~inner~~ outer surface ~~of the~~ 40 of the polyamide sleeve, with the grease 48 sandwiched therebetween.

Please replace paragraph [0024] with the following amended paragraph:

The inner SARCA (the polyamide sleeve 32 and gadolinium foil 38) is then secured to the underside of the upper SARCA (the stainless sleeve 28 and collar ~~32~~ 34) via glue 50 (preferably the silicone rubber adhesive such as SYLGARD®) ~~Sylgard~~ applied to the uncoated or radially inner side of sleeve 28 (including collar 34) and to the radially outer surface 51 of the gadolinium foil 38. The SARCA assembly is then baked at 200°C. for about 20 minutes.

Please replace paragraph [0025] with the following amended paragraph:

Referring again to Figure 2, the final assembly includes locating a coupler 52 at the forward end of the crystal 12, with silicon oil between the coupler and the front face 54 of the crystal. At the opposite or rearward end of the crystal, ~~Teflon®~~ polytetrafluoroethylene tape discs 56, 58 are applied to the back or rear face of the crystal 12, with a boron nitride disc 60 and a gadolinium disc 62 sandwiched between the tape discs 56, 58, a compression plate 64, axial spring 66 and an end cap 68. This entire

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detector assembly is located within a stainless steel shield or housing 70, with axially extending radial springs ~~72~~ 73 located radially between the SARCA assembly 26 and the shield 70. The end cap 68 is welded to the end of the shield 70, thereby holding all of the above components within the shield (or detector housing). The forward end of the shield 70 is threaded to facilitate attachment of a photo-multiplier tube 72 (Figure 1) in conventional fashion, and the combined detector may then be located in a tool housing (not shown).